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| APPLICATION NO.             | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------------|-------------|----------------------|---------------------|------------------|
| 10/001,379                  | 10/23/2001  | Michael John Bader   | 2001B095            | 1300             |
| 23455                       | 7590        | 02/23/2004           | EXAMINER            |                  |
| EXXONMOBIL CHEMICAL COMPANY |             |                      | JACKSON, MONIQUE R  |                  |
| P O BOX 2149                |             |                      | ART UNIT            |                  |
| BAYTOWN, TX 77522-2149      |             |                      | PAPER NUMBER        |                  |

1773

DATE MAILED: 02/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/001,379

Applicant(s)

BADER, MICHAEL JOHN

Examiner

Monique R Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The amendment filed 12/4/03 has been entered. Claims 1-12 are pending in the application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Claim Rejections - 35 USC § 102***

3. Claims 1-4 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Fischer et al (WO99/67094 for which USPN 6,562,478 is the English equivalent.) Fischer et al teach a coextruded film comprising a base layer of polyolefin, preferably at least 50wt% polypropylene with other polyolefins such as polyethylene particularly HDPE up to 15wt% (*hence reads on comprising polyethylene, particularly HDPE*); and at least one outer layer, preferably two outer layers on both sides of the base layer, comprising EPB; wherein the base layer may also comprise up to 40wt%, based on the total weight of the base layer, of an inert material such as calcium carbonate to produce microscopic cavities or voids to give the film an opaque or white appearance; and wherein the outer layer(s) may comprise an effective amount of various additives, preferably hydrocarbon resin such as petroleum resins, styrene resins, cyclopentadiene resins and terpene resins in an amount of 1 to 30wt%, preferably from 2 to 10wt% (Abstract; Col. 2, line 15-36; Col. 10, line 65-Col. 11, line 59; Col. 12, line 8-44.) Fischer et al further teach a method of producing the coextruded multilayer film by coextruding the layers, casting the coextrusion against a casting roll wherein the outer layer would be against the casting roll, stretching the film in the machine direction and then further stretching in the transverse direction (Col. 13, line 66-Col. 14, line 60.)

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4. Claims 1-5 and 7-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Murschall et al (USPN 5,683,802.) Murschall et al teach a biaxially oriented, multilayer, coextruded film comprising a base layer of polyolefin, preferably at least 50wt% polypropylene with other polyolefins such as polyethylene particularly HDPE up to 15wt% (*hence reads on comprising polyethylene, particularly HDPE*); and at least one outer layer, preferably two outer layers on both sides of the base layer, comprising a heat sealable polymer such as EP or EPB in an amount from 75wt% or a non-heat-sealable polymer such as propylene polymer; wherein the base layer may also comprise 1 to 25 wt% of vacuole-inducing particles such as calcium carbonate to produce microscopic cavities or voids to give the film an opaque or white appearance; and wherein the film may comprise interlayers of the same materials as described for the base layer, including mixtures with polyethylene, disposed between the base and outer layers; and wherein in addition to an outer layer ceramic additive, the one or more layers may comprise an effective amount of various additives including hydrocarbon resins such as petroleum resins, styrene resins, cyclopentadiene resins and terpene resins in an amount of 1 to 20wt% (Abstract; Col. 4, lines 41-49; Col. 5, lines 5-30; Col. 6, line 15-32; Col. 7, lines 1-47; Col. 8; Col. 9, line 44-Col. 10, line 63.) Murschall et al further teach a method of producing the coextruded multilayer film by coextruding the layers, casting the coextrusion against a casting roll wherein the outer layer would be against the casting roll, stretching the film in the machine direction and then further stretching in the transverse direction (Col. 11, line 13-48; Examples.) With respect to the porosity and unidirectional tear properties, the Examiner takes the position that the invention taught by Murschall et al would inherently possess the instantly claimed properties given that these properties are dependent upon the type and amount of vacuole-

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inducing particles or cavitating agent of the film and the method of making the film wherein the film taught by Murschall et al includes the same materials as instantly claimed and is produced by the same method as the instant invention.

***Claim Rejections - 35 USC § 103***

5. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/12302 (WO'302) in view of DeLisio et al (USPN 6,458,469) or Peiffer et al (USPN 6,410,132) for the reasons recited in Paper No. 4 and restated below.

WO'302 teaches a biaxially oriented polyethylene film comprising a microporous base layer of polyethylene, preferably MDPE or HDPE, and a cavitating agent, preferably calcium carbonate, in an amount of 1wt% to 30wt%; outer WVTR-controlling skin layers of polyethylene or ethylene-propylene copolymer or EPB copolymer; and preferably tie layers of polyethylene between the base and the skin layers (Abstract; Page 2, lines 21-30; Page 3, lines 12-28; Page 5, lines 3-12; Page 7, lines 3-17.) WO'302 teach that the film has gloss properties and excellent water vapor transmission with examples having a WVTR within the instantly claimed range and wherein the WVTR increases as cavitation increases wherein the amount of cavitating agent also affects the porosity of the base layer (Examples.) WO'302 teach that the film is produced by coextruding the layers, casting the coextruded film with the skin layer on the casting side and then orienting the film in machine direction and then the traverse direction (Page 7, line 30-Page 8, line 15; Page 11, Examples.) WO'302 does not teach the incorporation of a hydrocarbon resin into the skin layer(s) in an amount of 10-20wt% as instantly claimed or that the film has the porosity and tear properties as instantly claimed. However, one having ordinary skill in the art would have been motivated to include conventional additives in the multilayer film wherein

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DeLisio et al and Peiffer et al teach that hydrocarbon resins such as terpene resin are added to the skin layer of a multilayer polyolefin film to improve heat sealing characteristics or optical properties of the film, wherein DeLisio et al teach up to 10wt% of the resin and Peiffer et al teach amounts of from 1 to 40% by weight wherein outer layers with hydrocarbon resins are particularly advantageous in respect to their optical properties such as gloss (DeLisio et al, Col. 1, lines 16-27 and Col. 4, lines 33-47; Peiffer et al, Col. 6, lines 18-29 and Col. 3, line 67-Col. 4, line 44.) Hence, one having ordinary skill in the art at the time of the invention would have been motivated to include conventional additives such as hydrocarbon resins like terpene resin in the outer or skin layers of the invention taught by WO'302 to improve the optical properties of the film, such as gloss, as taught by DeLisio et al and Peiffer et al, utilizing routine experimentation to determine the optimum amount of hydrocarbon resin to include and further utilizing routine experimentation to determine the optimum amount of cavitating agent to provide the desired porosity, WVTR and tear properties for a particular end use.

#### ***Response to Arguments***

6. Applicant's arguments filed 12/4/03 have been fully considered but they are not persuasive. With respect to Fischer et al and Murschall et al, the Applicant argues that the base layers of these references are entirely different from the base layer of the instant invention considering the references utilize mostly polypropylene with at most 15wt% HDPE, while the instant invention comprises a base layer of polyethylene, particularly MDPE or HDPE. The Applicant further argues that the instant invention does not include some of the additives taught by the cited references. However, the Examiner notes that the instant invention is drafted in the open transition language of "comprising" and hence does not exclude the incorporation of other

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additives or polymers in any of the layers including the base layer. Considering the instant claims recite "a base layer comprising polyethylene and a cavitating agent" as opposed to "consisting of polyethylene and a cavitating agent", even the smallest amount of polyethylene (less 1wt%) would read upon the instantly claimed invention. With respect to the obviousness rejection over WO'302, the Applicant previously argued on 6/19/03 that one skilled in the art would not look to the incorporation of hydrocarbon resins in the skin layers to achieve improvements in the porosity and tear properties as in the present invention. However, upon further review of the instant disclosure, the Examiner notes that the instant disclosure provides no evidence of unexpected results with respect to the incorporation of the hydrocarbon resins and its effect on porosity and tear properties. The discussion and examples provided by the Applicant are silent with regards to any improvement in porosity or tear properties as a result of the presence of the hydrocarbon resins. The instant disclosure only provides information with respect to the WVTR of the film as it is affected by the hydrocarbon resin content, wherein the data presented does not appear to provide unexpected results in terms of WVTR either given that examples utilizing LDPE or MDPE without hydrocarbon resin also provide excellent WVTR properties. Therefore, the Examiner maintains her position that the instant invention would have been obvious over the cited prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 571-272-1508. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 571-272-1516. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Monique R. Jackson  
Primary Examiner  
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February 13, 2004